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W. M. HARRIS

2,680,920

ILLUMINATED DISPLAY SIGN

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Fig. 1.

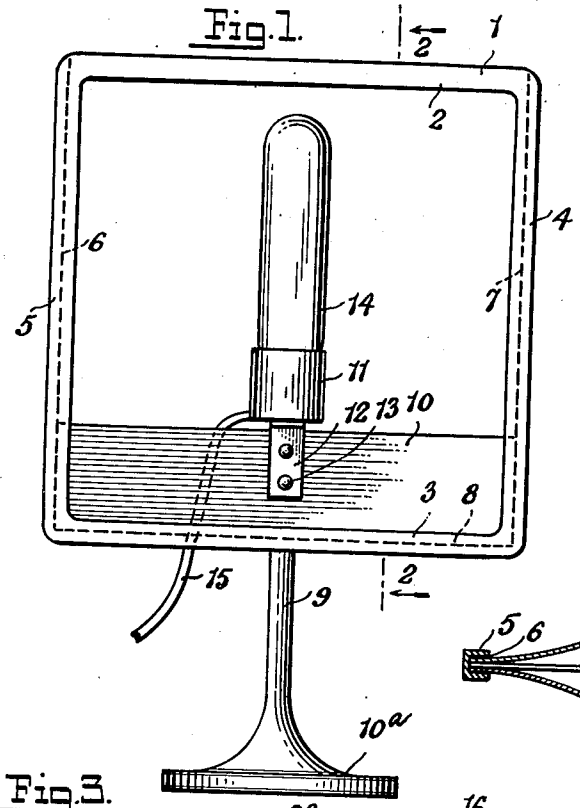


Fig. 2.

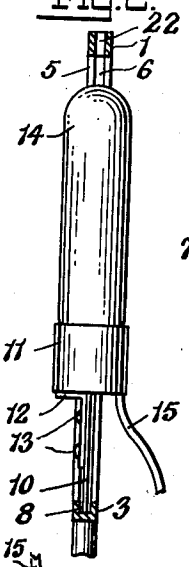
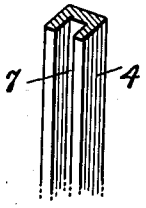


Fig. 6.



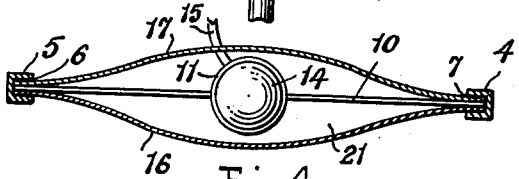


Fig. 4.

Fig. 3.

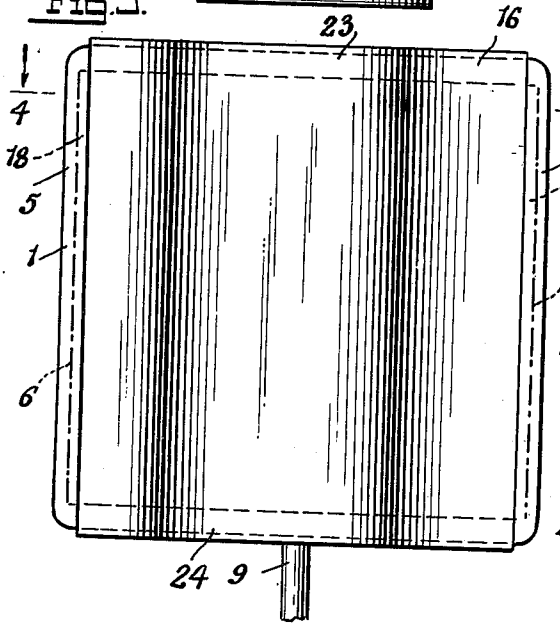
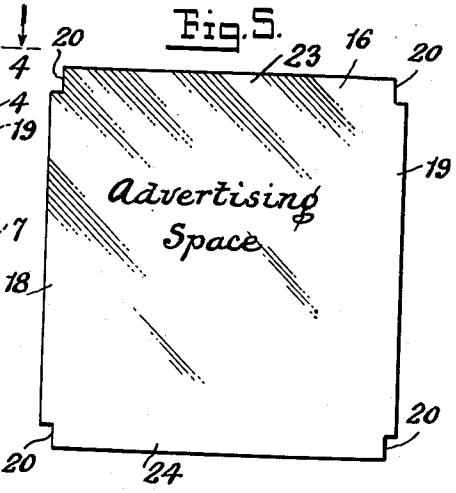


Fig. 5.



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UNITED STATES PATENT OFFICE

2,680,920

ILLUMINATED DISPLAY SIGN

William Melish Harris, Greenwich, Conn.

Application November 26, 1952, Serial No. 322,660

2 Claims. (Cl. 40—132)

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This invention relates to illuminated display or advertising signs, and particularly of the type used in stores, on counters or capable of other uses.

It is an object of the invention to provide a sign of this character which may be easily assembled without the use of tools; in which the display sheets or panels can be easily changed with a minimum of effort, and by which the display matter will be rendered easily readable and attractive.

More particularly, the invention contemplates the provision of a frame and means by which the same may be rested on, or attached to, a counter or other support; a removable illuminating device is fitted within the frame, and facially opposed display panels are attached to the opposite sides of the frame and co-operate to form a lamp chamber between them, the several parts of the device being capable of ready assembly or disassembly without the use of tools.

With these and other objects to be hereinafter set forth in view, I have devised the particular arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed, Fig. 1 is a front elevational view of the supporting frame for the sign;

Fig. 2 is a sectional view, taken substantially on the line 2—2 of Fig. 1, looking in the direction of the arrows;

Fig. 3 is a front elevational view of the completed sign;

Fig. 4 is a sectional view, taken substantially on the line 4—4 of Fig. 3, looking in the direction of the arrows;

Fig. 5 is a face view of one of the display panels, and

Fig. 6 is a perspective view, in section, of one of the side bars of the frame shown in Fig. 1.

Referring to the drawing, 1 indicates the frame of the sign. The same is of conventional construction and frames of this character are widely used in stores and other business places for the advertising of merchandise and for other purposes. Such frames usually contain one or more sheets of cardboard bearing advertising material or other indicia and are not illuminated. One of the objects of the present invention is to utilize a frame of this character for the support of display panels which will be illuminated by lighting means removably mounted in the frame and between the display panels.

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The frame 1 is shown as being substantially rectangular in shape, and includes an upper bar 2, a lower bar 3, and the vertical side bars indicated respectively at 4 and 5. The frame 1 is attached to a post 9 terminating in a base 10a upon which the sign is usually rested on a counter or other support. The vertical bar 4 is provided with a groove 7; the bar 5 is provided with a groove 6, and the lower bar 3 is provided with a groove 8, the several grooves 6, 7 and 8 usually co-operating in the reception and support of a display card that is slipped into these grooves by entry through a slot 22 formed through the upper bar 1.

Mounted within the frame and extending across the same, and having three of its edges received in the grooves 6, 7 and 8, is a cross member 10 in the form of a flat strip, which may be of metal or other suitable stiff and strong material. The strip 10 is placed in position by merely inserting it at an angle within the frame and permitting it to drop down in the grooves therein and come to rest in the bottom groove 8, substantially as shown in Fig. 1. The strip 10 and the lamp socket 11 supported thereby can be similarly removed from within the frame 1 whenever desired.

The lamp socket 11 is supported in upright position by means of an angle bracket 12 attached to it, said bracket having its vertical leg secured to the strip 10 by rivets 13 or equivalent fastening elements. The socket receives a lamp bulb 14, preferably of the elongated type shown, and a current-carrying cord 15 is connected at one end to the socket and terminates at its other end in the conventional connection plug for attachment to an electric outlet to thereby illuminate the lamp.

The display sheets or placards are shown respectively at 16 and 17, and are similar in shape and are each adapted to be printed or otherwise reproduced with advertising or display material. Each of these sheets is preferably made of translucent plastic material or any other usable translucent material by means of which the advertising borne by the sheet will be enhanced or rendered brilliant by the projection of light through the sheet. Each of the sheets 16 and 17 is relatively stiff, but is capable of flexure to permit of its insertion in the frame 1, which flexure will be maintained, as seen in Figs. 3 and 4, while the sign is in its operative position.

The sheets 16 and 17 are preferably at least as long in one direction as the height of the frame 1 and are each somewhat wider than the

distance between the two vertical bars 4 and 5 of the frame. This causes the sheets to assume the flexed condition shown in Figs. 3 and 4, when the opposite marginal edge portions 18 and 19 of the sheets are inserted in the grooves 6 and 7 of the vertical bars 4 and 5. It will be noted that the corners of the sheets 16 and 17 are notched or cut away as indicated at 20 and this permits the upper and lower edge portions 23 and 24 of sheets 16 and 17 to extend over and cover the upper and lower bars 2 and 3 of the frame 1. In fact, the sheets may be somewhat longer than the height of the frame 1 if desired, and these upper and lower edge portions 23 and 24 of the sheets can respectively extend above the top and bottom of the frame.

After the lighting unit, consisting of the strip 10, the socket 11, lamp 14 and associated parts, has been inserted in the frame 1, as shown in Fig. 1, the display panels or sheets 16 and 17 are then inserted in the frame. This is done by flexing each sheet and inserting its side edges 18 and 19 into the grooves 6 and 7. Since the sheets 16 and 17 are of greater width than the distance between the vertical bars 4 and 5, it will be apparent that each sheet, after having its edges inserted in the grooves 6 and 7 will remain in the outwardly bowed condition clearly seen in Fig. 4. The tendency of the sheets to straighten or flatten out will, of course, serve to retain the same in place and in the bowed condition described, in the frame.

The two sheets 16 and 17, in the facially disposed position just described, and illustrated in Figs. 3 and 4, thus tend to bow or bulge away from one another and they thereby produce between them a chamber 21 in which the lighting unit is now housed. The bulge or bow of the two sheets 16 and 17 is preferably sufficient to cause the sheets to clear the lamp 14, thus preventing them from being burned or overheated by contact therewith.

It will be further noted that the lamp chamber 21, produced as above described, is open at the top and bottom and thus ventilation for the lamp is assured.

From the foregoing, the usefulness of the described device will be readily apparent. The lighting unit can be easily dropped into position in the frame 1 and connected to a source of electrical current; the sign sheets or placards 16 and 17 can be placed in position and as easily removed by engaging or disengaging them with the grooves 6 and 7, and thus a simple, well-illuminated and attractive sign can be readily produced to suit the requirements of the user.

While I have herein stated that the sign shall be arranged with the vertical or side bars 4 and 5 engaging the edges of the sheets, the sign can be arranged at right angles to the position in which it is now shown. That is to say, the sign sheets as well as the ends of the strip 10 might engage in grooves provided in upper and lower bars of the frame and the chamber 21 would then be open at the ends of the frame rather than at the top and bottom as now disclosed. Having described one embodiment of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:

1. An illuminated sign comprising, a substantially rectangular grooved-edge frame, a cross member in the form of a strip extending across the frame and having its opposite ends received in the groove in the frame, a lamp socket mounted on and projecting upwardly from the strip, a lamp received in said socket, the lamp being surrounded by the frame, a display sheet of greater size in one direction than the frame disposed over one face of the frame, said sheet having opposite edge portions disposed in the groove in the frame to cause said sheet to assume an outwardly bowed condition, a similar sheet arranged over the opposite face of the frame, the two sheets co-operating in forming a lamp chamber between them in which the lamp is located.

2. An illuminated sign comprising, a frame having grooved parallel side bars and upper and lower cross bars connecting the same, a pair of display sheets each having edges fitted in the grooves in the side bars and having portions extending over and covering the upper and lower cross bars, the sheets being of such a size relative to the distance between the side bars that said sheets assume an outwardly-bowed condition when fitted in the grooves in said side bars, the bowed sheets defining a chamber between them, a cross member located in said chamber between the sheets, said cross member being in the form of a flat strip having a lower edge supported by the lower cross bar, said cross member having its ends engaged in the grooves in the side bars, a lamp socket carried by the cross member and located in the chamber between the sheets, said socket being secured at the top of the cross member and carrying a lamp.

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